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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/167,286 10/07/98 ADEDEJI

A CN-8764

EXAMINER

IM22/0710

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HOKF, V

ART UNIT

PAPER NUMBER

1714

DATE MAILED:

07/10/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/167,286

Applicant(s)
ADEDEJI ET AL

Examiner
VERONICA P. HOKE

Art Unit
1714



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 17, 2001
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-15, and 17-21 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-15, and 17-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other:

Claims numbered 16-20 in the amendment received May 17, 2001 have been renumbered as claims 17-21 in accordance with 37 CFR 1.126 which requires consecutive numbering.

Claim Rejections - 35 U.S.C. § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9, 11-15 and 17-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3, 5, 13 and 21 are indefinite because in reciting the requisite materials in the composition, the ingredients do not require the materials designated as "an impact modifier" in the generic claims

Claims are indefinite in scope because the Markush selection of polymer present in addition to the required PPO or PPO plus HIPS plastics closes the claims to the presence of other polymers. Therefore the impact modifier terminology which is intended according to the disclosure on page 7 to encompass polymeric impact modifiers renders ambiguous the actual preclusion of other resins by the Markush recitation.

Claims are unsupported in not reciting the minimal concentration of the additives in an amount sufficient to provide the indicated effect(s).

The recitations "blends containing polycarbonate resin" and "blends containing polyetherimide resin" lack clarity because the remainder of the blend in each instance is of infinite scope. It reads on water, organic solvents, air, etc. None of these substances appears to be intended to be conveyed by the terminology "blends".

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-6,9 , 11-13 and 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano and Wetering et al taken with Fowler et al (both), Abolins (490), Palfrey, Fujii et al and Alexander (069).

The primary references relate that it is conventional to utilize compositions comprising either polypropylene, polyethylene, polycarbonate or polyphenylene ether as the predominant resin in making compositions suitable as molded pallets. See **Wetering** at col.1- col.2, line 36 and **Nakano** et al at col.15, lines 5 and 15 and col.1, line 15- col.4, line 6. Furthermore similarly to the instant claims a flame retardant's presence is also old according to **Nakano**: col.11-12.

Applicants composition differs by requiring 1) an additional polymer with said PPO which may be a styrenic grafted resin, polycarbonate (PC) or polyetherimide **and 2) an impact modifier** (independent claims 1,11 and 17) for the following reasons:

1) **Alexander (069)** states 9 col.7, lines 10-32) that pallets can be made from mixtures of suitable thermoplastics may be used as long as they are compatible or made to be compatibilized. Polyolefins, PC and polystyrene are materials suggested. Elastomers or thermoset resins' presence per se are discouraged because they are not readily injection moldable.

2) **Fowler (031)** at col.6, lines 7-10 and **(078)** at col.4, lines 45-58 relate that ABS a styrenic grafted resin, PE and polystyrene resins have long been utilized in forming molded pallets.

3) **Palfrey** relates (col.4, lines 32-38) that low density polyethylene is useful in lieu of ABS or HIPS in making molded pallets.

4) **Abolins** (490) relates that flame retardant PPO formulated with an aromatic and/ or phosphate flame retardant should contain both a styrenic resin such as HIPS as well as a separate impact modifier such as SEBS block copolymers or polyethylene (col.6, lines 42-47 and Table 1 in col.7).

It would be obvious to utilize these adjunct polymeric materials in the minimal amounts required to provide impact resistance and flexibility to PPO formulations given the high rigidity of PPO.

5) **Fujii et al** also relates that **styrenic resins supplementing PPO can be HIPS , ABS or polystyrene homopolymer as well as a blend thereof**. Moreover the impact modifier can be low density polyethylene , SEBS or SIS or SBS block copolymers as characterizes applicants formulations (col.4, line 29- col.6, line 4). This phosphate plasticizer Fujii suggests is known to provide flameproofing as well according to **Nakano** (col.13, lines 12-14).

Therefore it would be prima facie obvious to utilize a thermoplastic such as HIPS with a grafted styrenic resin such as ABS and a styrenic impact modifiers such as SEBS in order to provide improved thermal processing during injection molding and to provide improved impact strength resistance to the molded PPO pallet which contains ordinarily known flame retardants for the resin blend.

Claims 7,8,14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wetering and Nakano as applied to claims 1-6,9-11, 13 and 17-21 above, and taken with White et al (178) and (242) in view of Alexander et al (069).

Nakano relates that compositions comprising PPO- based plastics which also contain syndiotactic polystyrene may contain a polyimide, ABS resins, polyethylene or PC resin

(col.9-10). It is evident from **Wetering's** disclosure that PPO can be used per se in the absence of syndiotactic polystyrene in making pallets. It is also considered evident that the optional polyimide plastic additive which **Nakano** alludes to in col.10, line 14 ostensibly includes polyetherimides since according to the **White disclosures** of suitable reactants they may be ether-containing reactants and the resins are also injection moldable .

To the extent the auxiliary resins are thermoset resins, **Alexander** discourages their presence as explained supra in view of their poor injection moldability. Applicants have failed to disprove their unsuitability even with PPO as the predominant resin.

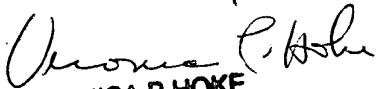
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

vph

July 6, 2001

703 308-2444


VERONICA P. HOKE
PRIMARY EXAMINER